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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

July 6, 2001

The Honorable Donald L. Evans
Secretary of Commerce
Department of Commerce
The Herbert Hoover Building
14th Street & Constitution Avenue, N.W.
Washington, D.C. 20230

Reference: Pending FCC Rule-making (ET Docket 98-153) on Fast-Track
Subject: Request for Unified Administration Position on FCC UWB Rule-Making

Dear Secretary Evans:

The Signatories listed above bring to your attention the following joint comments on the national policy consequences for the public safety, economy, and national security that will be imminently decided in the above proceeding.

The Federal Communications Commission (FCC) is considering a rule to allow emerging ultra-wideband (UWB) transmitters and networks to operate on an unlicensed basis under Part 15 of its rules governing consumer devices. Since UWB devices send pulses of energy across extremely wide sections of radio spectrum, this pending rule could allow UWB operations to overlay all existing systems and services operating in 1 to 6 GHz. Most importantly, this spectrum sharing proposes a historic rule change to remove the prohibition on intentional transmissions into and across all restricted frequency bands, including those used by defense, safety-of-life services, and the Global Positioning System (GPS). These restrictions have proven fundamental to slowing the rise in the noise floor in restricted bands and protecting safety-of-life in the National Airspace (NAS) and strategic military advantage. A rising noise floor would undermine the commercial utility of spectrum allocated to existing services, thereby affecting large segments of the information economy. If the FCC changes current Part 15 restrictions, this would require existing commercial licensees to accept new levels of interference and turn exclusive licenses into shared licenses. This will create further regulatory uncertainty and undermine investment in the

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wireless economy and thus delay the hoped for breakthrough in broadband network communications for the mobile internet.

As a preliminary matter, many of the entities listed on this letterhead have filed separate comments with the FCC, reflecting individual interests. However, all the Signatories to this letter share certain fundamental principles and conclusions. These are as follows:

FIRST, ultra-wideband (UWB) devices may offer a promising technology that could provide new and innovative services. However, the FCC has received extensive comments on a broad range of interference test results by the National Telecommunications Information Administration (NTIA), Department of Transportation (DoT), universities, and industry that demonstrate that such devices have unique, intentional transmission characteristics that cause significant harmful interference to GPS, other safety-of-life services, wireless services, such as Personal Communication Service (PCS), and to satellite services such as Digital Audio Radio Service (DARS). Test results show adverse interference effects from UWB devices to existing services at power levels substantially below Part 15 levels. The potential for disruption increases with the unlicensed deployment of large scale, overlapping communication networks. Consequently, the Signatories recommend that UWB devices be limited to spectrum above 6 GHz, and below 1 GHz for UWB ground penetrating radars (GPRs), not be allowed to operate in any restricted band, including safety-of-life service bands, and be subject to a licensing regime.

SECOND, an FCC rule-making that broadly affects the economy, national security, and public safety must ensure that implementation is practical to effectively meet enduring national policy needs, including:

- (i) the safety of the spectrum foundation of all transportation modes and of the National Airspace (NAS), including bands restricted for safety-of-life services and GPS;
- (ii) secure spectrum for evolving national security needs and military options, including GPS, and satellite communications;
- (iii) the commercial utility of spectrum allocated to existing services requiring a stable noise floor;
- (iv) free spectrum for the safe introduction of UWB devices and networks and innovation in an appropriate band segment.

THIRD, The absence of a unified Administration position at the highest policy levels may result in a short-sighted compromise allowing spectrum sharing on an unlicensed basis, under the pretext that a narrow emission mask in practice protects existing services. This would create major risks and damage the information economy. For example—as proposed by some UWB proponents* --a rule that uses emission masks to allow unlicensed UWB operations to overlay existing services in 1 to 6 GHz will not prove practical or safe for the following reasons:

- (i) an emission mask, whether on a licensed or unlicensed basis, will not address the interference resulting from harmful frequency shifts caused by antenna distortion on simple UWB consumer devices;
- (ii) the commercial opportunities for UWB are in large-scale communications networks and wireless mobile connectivity to the Internet, but narrow emission masks are not a

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cc: Chairman Michael K. Powell
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Commissioner Michael J. Copps
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Ms. Magalie Roman Salas, Secretary

* Comments filed by Xtreme Spectrum under ET Docket 98-153 on April 25, 2001
and in a presentation to the FCC on May 30, 2001

cc:

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The Honorable Donald H. Rumsfeld
The Honorable Daniel S. Goldin
The Honorable Mitchell E. Daniels
Dr. Condoleezza Rice
Dr. Lawrence B. Lindsey
Mr. Richard Russell
Mr. Franklin Miller